DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	FOREST POND	Lake Area (ha):	9.51
Town:	CANTERBURY	Maximum depth (m):	8.2
County:	Merrimack	Mean depth (m):	3.8
River Basin:	Merrimack	Volume (m^3):	360000
Latitude:	43°23'05" N	Relative depth:	2.4
Longitude:	71°33'30" W	Shore configuration:	1.65
Elevation (ft):	997	Areal water load (m/yr):	10.57
Shore length (m):	1800	Flushing rate (yr^{-1}):	2.80
Watershed area (ha):	196.8	P retention coeff.:	0.54
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:		1 February 1991	26 July 1990
DOM. PHYTOPLANKTON (% TOTAL)	#1	PERIDINIUM 99%	DINOBRYON 30%
	#2		TABELLARIA 25%
	#3		MERISMOPEDIA 20%
PHYTOPLANKTON ABUNDANCE (cells/mL)			575.0
CHLOROPHYLL-A (µg/L)			1.50
DOM. ZOOPLANKTON (% TOTAL)	#1	CILIATE SPP. 93%	KERATELLA 50%
	#2		
	#3		
ROTIFERS/LITER		11	17
MICROCRUSTACEA/LITER		4	13
ZOOPLANKTON ABUNDANCE (#/L)		207	30
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			8.1
BOTTOM DISSOLVED OXYGEN (mg/L)		11.3	13.0
BACTERIA (fecal col., #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: FOREST POND
Town: CANTERBURY

	1 February 1991		26 July 1990		
DEPTH (m)	2.5	5.0	2.5		5.0
pH (units)	5.6	5.7	6.1		6.1
A.N.C. (Alkalinity)	1.0	1.0	0.8		1.0
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.10	0.22	1.36		0.21
TOTAL PHOSPHORUS	<0.001	0.004	0.010		0.004
CONDUCTIVITY (μmhos/cm)	21.5	20.7	19.0		19.7
APPARENT COLOR (cpu)	9	9	7		9
MAGNESIUM			0.56		
CALCIUM			0.9		
SODIUM			1.1		
POTASSIUM			0.50		
CHLORIDE	< 2	< 2	< 2		2
SULFATE	5	5	5		5
TN : TP		55	136		53
CALCITE SATURATION INDEX			5.3		

All results in mg/L unless indicated otherwise

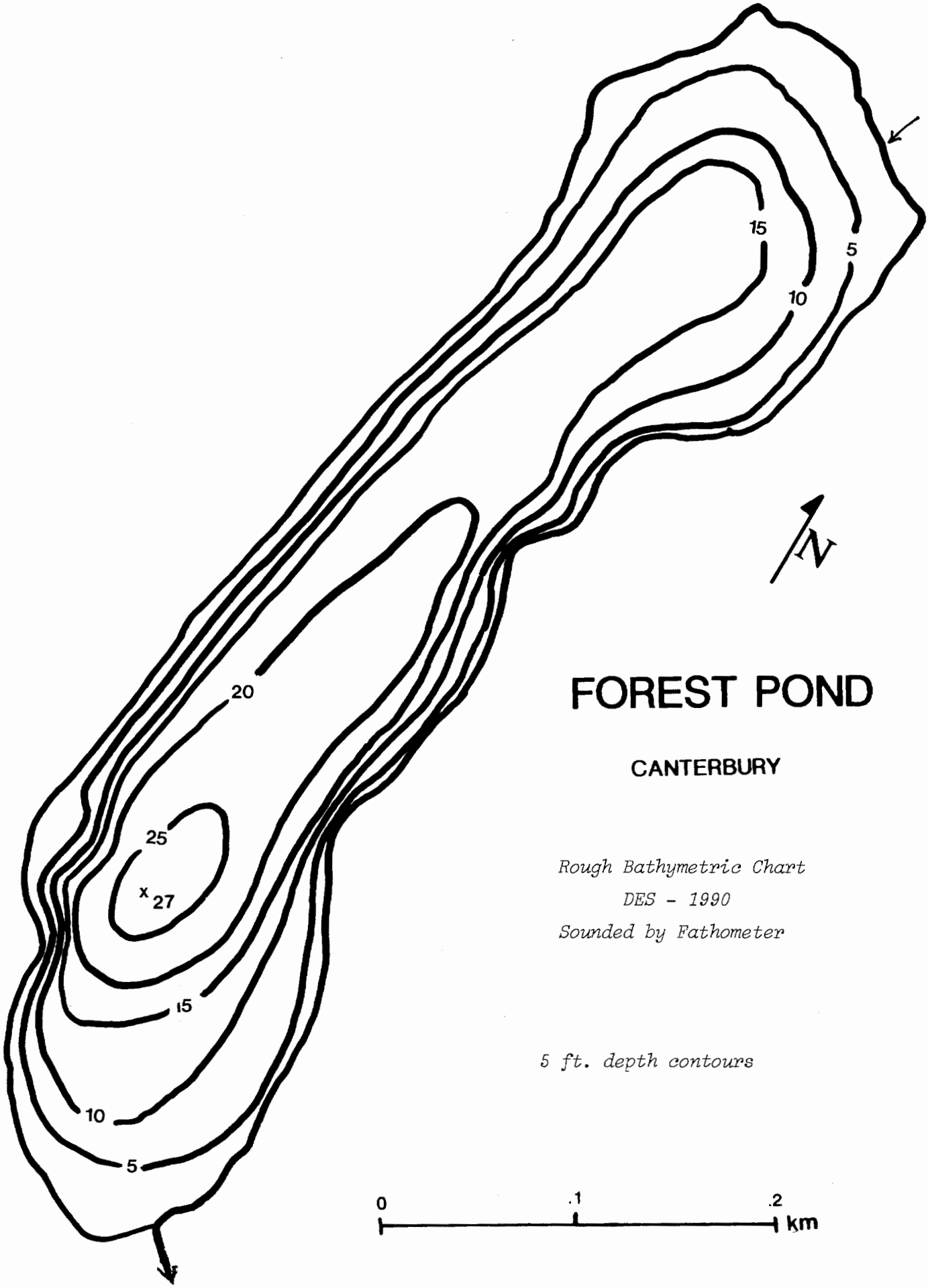
TROPHIC CLASSIFICATION: 1990

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	0	1	0	1	Oligo.

COMMENTS:

1. Access is via a gated logging road on private property through the permission of the landowner.

2. Merismopedia (55%) was a strong dominant genera of wholewater phytoplankton.



FOREST POND

CANTERBURY

Rough Bathymetric Chart

DES - 1990

Sounded by Fathometer

5 ft. depth contours

FIELD DATA SHEET

LAKE: FOREST POND
DATE: 07/26/90

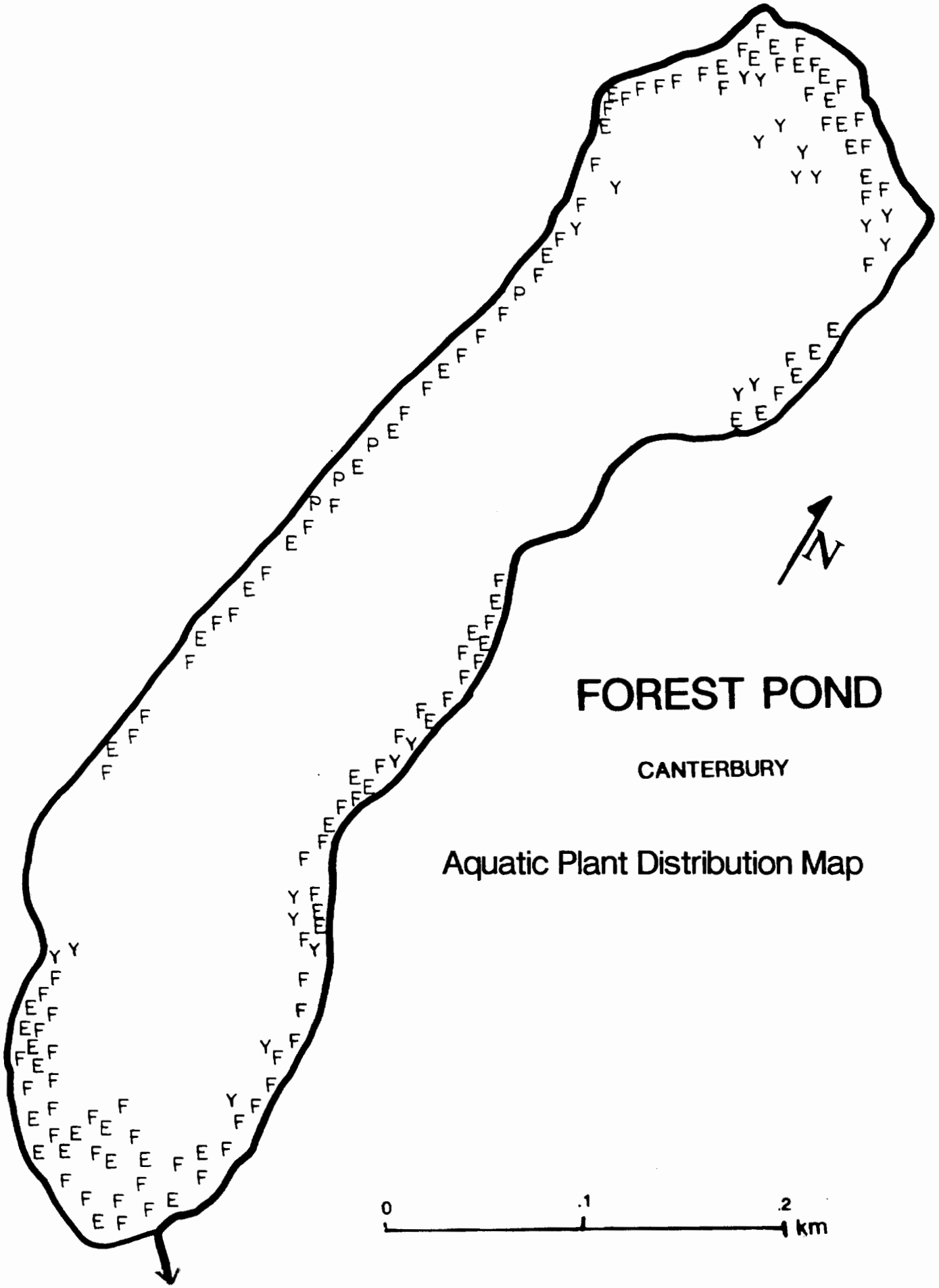
TOWN: CANTERBURY
WEATHER: MOSTLY SUNNY; WARM

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	25.0	8.6	103 %
	1.0	25.0	8.6	103 %
	2.0	25.0	8.6	103 %
	3.0	24.9	8.6	101 %
	4.0	24.5	8.6	101 %
	5.0	24.0	8.9	104 %
	6.0	24.0	9.5	112 %
	7.0	22.6	11.0	126 %
	7.5	21.8	13.0	146 %

SECCHI DISK (m): 8.1
BOTTOM DEPTH (m): 8.2
TIME: 1345

COMMENTS: Due to high light penetration and abundant bottom plant growth, the dissolved oxygen increased in the bottom waters.

*Dissolved oxygen values are in mg/L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FOREST POND
CANTERBURY
Aquatic Plant Distribution Map
0
.1
.2
km

AQUATIC PLANT SURVEY

LAKE: FOREST POND TOWN: CANTERBURY DATE: 07/26/90

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
F	Nymphoides cordatum	Floating heart	Scattered
E	Eriocaulon septangulare	Pipewort	Scattered
P	Pontederia cordata	Pickerelweed	Sparse
Y	Nuphar	Yellow water lily	Sparse

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

1. Bladderwort was over the entire visible bottom of the pond. It is not depicted on the map or listed above because of its abundance. Overall abundance should be common-abundant.
2. Three beaver huts were observed on the pond; only one small dilapidated shack was on the shore.
3. A large number of 6 to 8 inch largemouth bass were observed. According to a fisherman present, that's as large as they get in this pond.